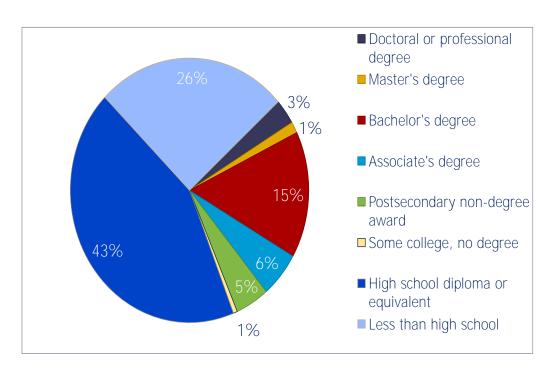
Education and training outlook for occupations, 2010-20



The 749 occupations for which BLS prepared 2010-20 employment projections received assignments in three categories: typical entry-level education, work experience in a related occupation, and typical onthe-job training needed to attain competency. In 2010, about onethird of jobs were in occupations that typically require postsecondary education for entry. ¹ The largest share among the postsecondary groups was bachelor's degree. A bachelor's degree was the typical entry-level education for 15 percent of jobs in 2010. Most jobs in 2010 were classified as high school diploma or equivalent or less than high school.

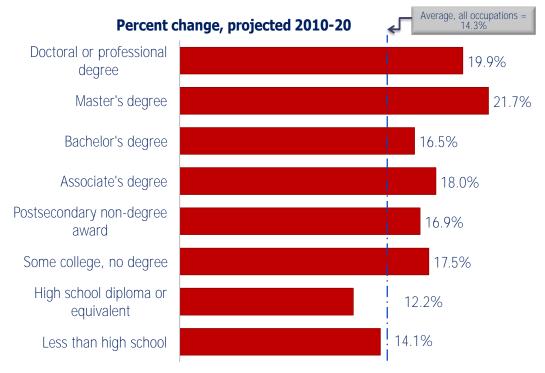
In 2010, about one-third of jobs were in occupations that typically require postsecondary education for entry



Source: U.S. Bureau of Labor Statistics, Employment Projections Program

¹These data are for 2010 employment summed by typical entry-level education assignment. The actual educational attainment of workers is different. Neither the 2010 data nor the projected 2020 data reflect actual or estimated numbers of workers by educational attainment.

Occupations that typically require a master's degree for entry are projected to grow the fastest from 2010 to 2020



Source: U.S. Bureau of Labor Statistics, Employment Projections Program

Occupations that typically require a master's degree for entry are projected to grow the fastest during the 2010-20 decade, followed by doctoral or professional degree and associate's degree occupations. All of the postsecondary groups are projected to grow faster than the average of 14.3 percent.

The slowest growth is projected to be in occupations with high school diploma or equivalent as the typical entry-level education.

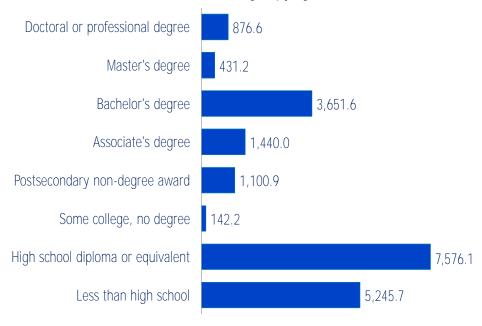
Most new jobs from 2010 to 2020 will not require a college degree.

About 7.6 million jobs will require only a high school diploma or equivalent for entry. About 3.6 million new jobs are projected to be in occupations assigned bachelor's degree.

Occupations assigned high school as the typical entry-level education include very large occupations that are projected to add many jobs due to their large size. These occupations include retail salespersons, general office clerks, and customer service representatives.

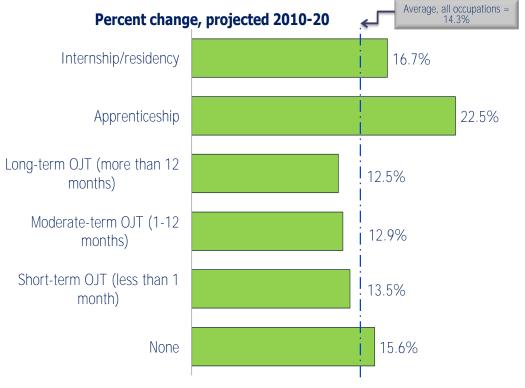
The most new jobs from 2010 to 2020 are projected to be in occupations that typically can be entered with a high school diploma

Thousands of jobs, projected 2010-20



Source: U.S. Bureau of Labor Statistics, Employment Projections Program

Apprenticeship and internship/residency occupations are projected to grow the fastest during the 2010-20 decade



Source: U.S. Bureau of Labor Statistics, Employment Projections Program

With regard to on-the-job training (OJT), the fastest employment growth is projected to be in occupations that typically require an apprenticeship. Most of the apprenticeship occupations are construction occupations. The construction industry was greatly affected by the 2007-09 recession. Rapid growth is projected for many construction occupations as the industry recovers from the recession; however, this growth represents only a partial recovery of jobs lost.

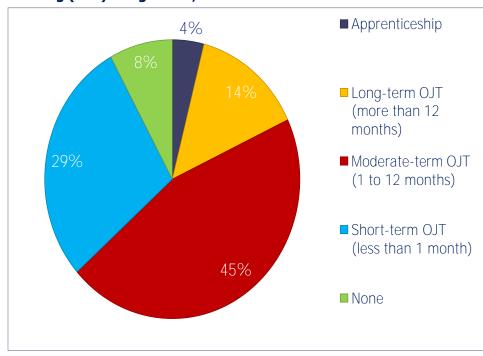
The second fastest employment growth is projected to be in occupations assigned internship/residency. Included in this group are physicians, dentists, teachers, psychologists, and social work occupations such as mental health counselors and marriage and family therapists.

Most occupations that typically require only a high school diploma or equivalent also require on-the-job training (OJT) to attain competency in the skills needed in the occupation. In 2010, 92 percent of occupations assigned high school as the typical entry level education required OJT. OJT includes occupation-specific training, not job-specific training; skills learned can be transferred to another job in the same occupation.

In 2010, about 45 percent of occupations assigned high school as the typical entry-level education needed moderate-term OJT.

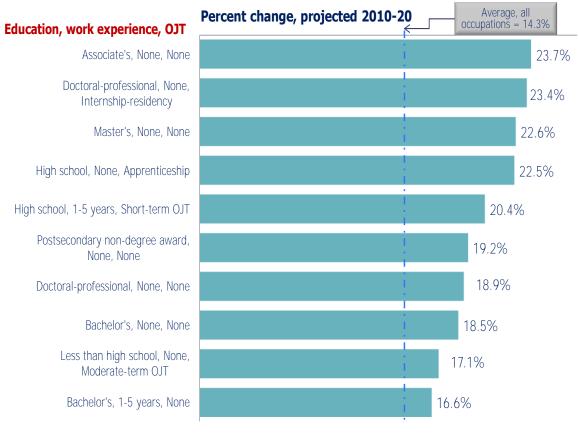
Most high school occupations require on-the-job training

Occupations in the high school category by on-the-job training (OJT) assignment, 2010



Source: U.S. Bureau of Labor Statistics, Employment Projections Program

The fastest growing paths include many healthcare occupations



Source: U.S. Bureau of Labor Statistics, Employment Projections Program

The **typical path** is the intersection of the education, work experience, and OJT assignments. Healthcare occupations are represented in the fastest growing paths on this chart. Due to the aging of the population, most healthcare occupations are projected to grow much faster than average.

The Associate's, None, None path includes physical therapy and occupational therapy assistants, dental hygienists, registered nurses, and other healthcare occupations along with some science and engineering technician occupations.

The Doctoral-professional, None, Internship-residency path largely consists of physicians and surgeons and dentists. The Masters, None, None path has healthcare, counseling and social work, and social science occupations.

The High school, None, Apprenticeship path mainly includes construction occupations. Construction is projected to grow rapidly as it recovers from the 2007-09 recession, but that will be only a partial recovery of jobs lost.

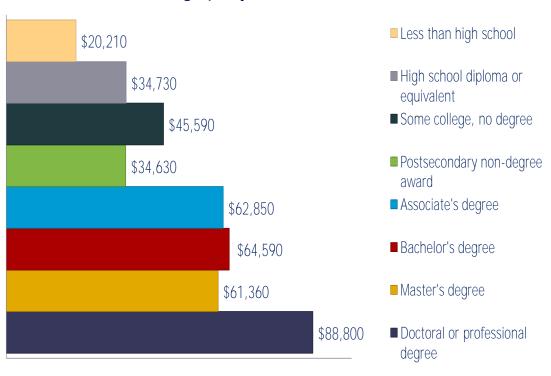
Occupations that typically require postsecondary education for entry paid more than the median annual wage for all occupations in May 2011— \$34,460. The highest median wage was for doctoral or professional degree occupations. Workers in occupations typically requiring an associate's degree, bachelor's degree, or master's degree for entry were paid nearly twice as much as the median wage for all occupations. Master's degree occupations include various counselor, therapist, and social work occupations, which tend to be lowerpaying occupations.

The median annual wage for occupations that need only a high diploma for entry was a little more than the overall median wage.

However, there are high-paying occupations in this category; eighteen had median annual wages of more than \$60,000. All of these higherpaying high school occupations require additional preparation in the form of work experience, OJT, or a combination of both.

Occupations that typically require postsecondary education for entry have higher wages

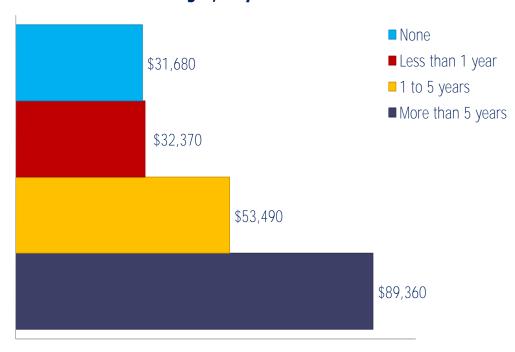
Median annual wages, May 2011



Source: U.S. Bureau of Labor Statistics, Employment Projections Program and Occupational Employment Statistics Survey.

Median wages are highest for occupations that typically require more than 5 years of work experience

Median annual wages, May 2011



Source: U.S. Bureau of Labor Statistics, Employment Projections Program and Occupational Employment Statistics Survey.

Median annual wages are highest for occupations that typically require more than 5 years of work experience in a related occupation. Most of the occupations that typically need work experience are managers or supervisors. The highest paying occupation that typically requires more than 5 years of work experience is chief executives at \$166,910; that occupation typically requires a bachelor's degree for entry.

For more information on the BLS education and training system, visit

- April 2012 Monthly Labor Review "Employment projections through the lens of education and training"
- Methodology http://www.bls.gov/emp/ep education tech.htm
- Definitions for the categories http://www.bls.gov/emp/ep_definitions edtrain.pdf

Data tables

- Education and training categories by detailed occupation http://www.bls.gov/emp/ep table 112.htm
- Employment by summary education and training assignment, 2010 and projected 2020 http://www.bls.gov/emp/ep table education summary.htm